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Exponent
4000 Kruse Way Place
Building 2, Suite 285
Lake Oswego, OR 97035

telephone 503-636-4338
facsimile 503-636-4315
www.exponent.com

February 20, 2002

Ms. Gwen Zervas, P.E.
Bureau of Federal Management
New Jersey Department of Environmental Protection
401 East State Street
Trenton, New Jersey 08625

Subject: Revised Geological Figures: Ventron/Velsicol Site, Wood-Ridge/Carlstadt, New Jersey
Project No. 8600B3N.005 0201

Dear Gwen:

Attached please find three sets of the figure that shows the transect locations, the two figures that show the horizontal extent of the clay and meadow mat layers, respectively, and the seven cross sections at the Ventron/Velsicol site in Wood-Ridge/Carlstadt, New Jersey. These figures were prepared by Exponent® on behalf of Rohm and Haas Company. These figures replace those submitted to you in December (cross sections) and January (horizontal extent of the clay and peat layers).

Upon further review of the design recommendations from the Ward (1975) report, Exponent determined that the peat layer under the warehouses was likely removed during construction. The Ward report advocates a slab foundation requiring the removal of the peat layer and the addition of foundation fill prior to pouring the concrete slab. Although we were unable to locate any "as-built" diagrams to confirm this type of construction, the report clearly prefers this approach for logistical and economic reasons. Based on this conclusion, we have revised the figure showing the horizontal extent of peat at the Wood-Ridge site. We also added a footnote to clarify the extent of soils containing clay on the clay figure.

Because the change to the peat layer under the warehouses affects the cross sections, we have revised the cross sections last sent to you in December 2001. Foundation fill under the warehouses is now designated as such on these cross sections. Again, the depth and placement of this fill that is shown on these figures is estimated based on design recommendations from the Ward report and is not based on field investigations or other direct physical evidence. A total of four cross sections intersected the foundation fill material beneath and adjacent to the warehouses and were modified accordingly. The other three cross sections were not affected.

In addition to the revisions discussed above, some minor horizontal scale corrections were made on five of the seven cross sections to be consistent with the site map.

Please feel free to contact me at (518) 370-5132, Ken Walanski at (847) 545-6037, or John Hock at (630) 963-6026, if you have any questions regarding these figures.

Sincerely,

for

Betsy Henry, Ph.D.
Project Manager

Enclosures (2)

cc: Seth Ausubel, USEPA Region 2
John Hock, CEC Inc.
Norm Kennel, Memphis Environmental Center
Ron Lantzy, Rohm and Haas Company
Ken Walanski, Rohm and Haas Company
Margaret Bazany, Rohm and Haas Company
David Langseth, Northeastern University

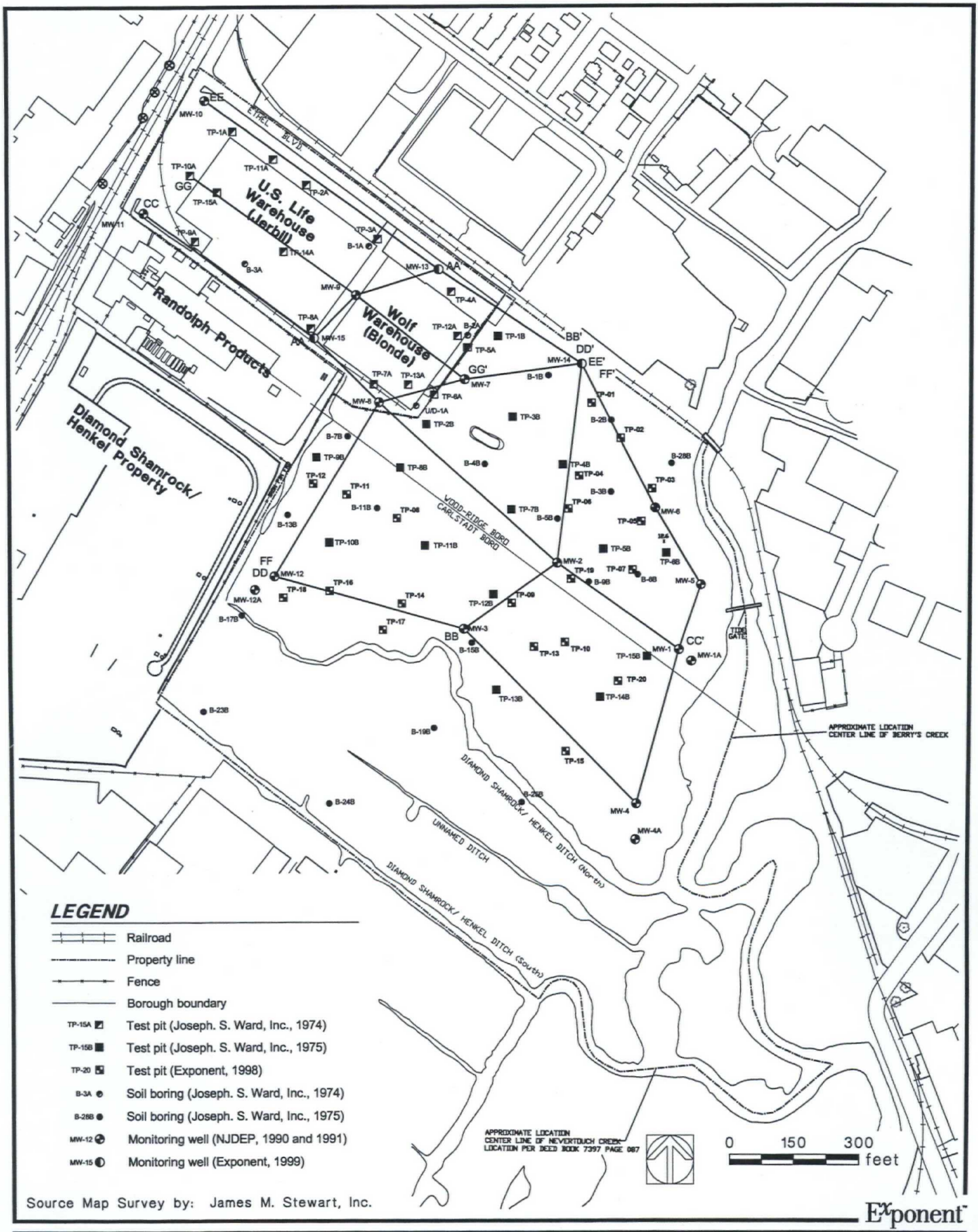

Figure N-1. Transect locations.

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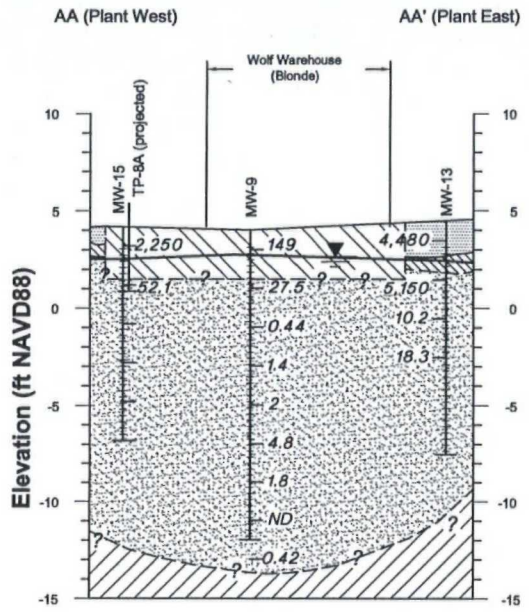

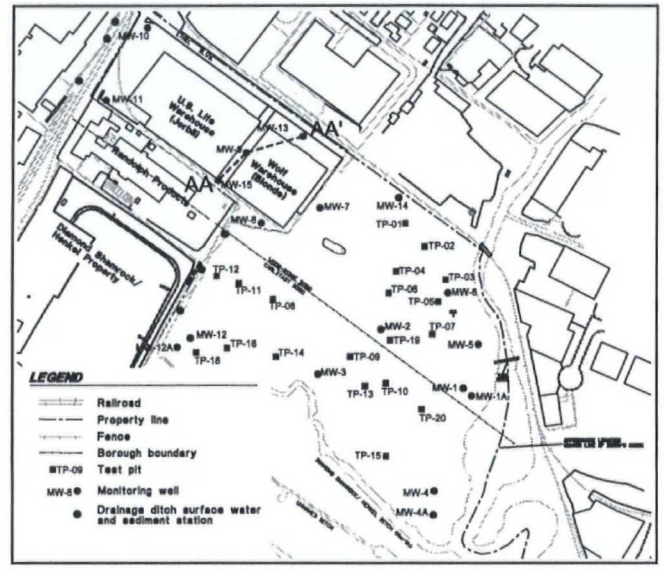

Transect location AA - AA'

LEGEND

- FILL (composed of silt, clay and construction debris)
- Organic rich silt and peat
- Fine to coarse sand
- Fine-grained deposits (undifferentiated, primarily composed of clay and silt with fine sand)
- Controlled fill (sand and gravel). Placed for building foundations. Buildings constructed in approximately 1975. Area and depth of fill estimated based on proposed design from the Ward (1975) geotechnical investigation report.
- —0.5 Hg soil concentrations (mg/kg) from boreholes and test pits, shown at midpoint of sample composite interval
- ? Unknown
- Soil contact; dashed where inferred
- Cased interval
- Screen interval
- Groundwater surface December 1999 (approximate)

0 100 200 feet

Note: Vertical scale is exaggerated 20x

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Figure N-2. Cross section AA-AA'.

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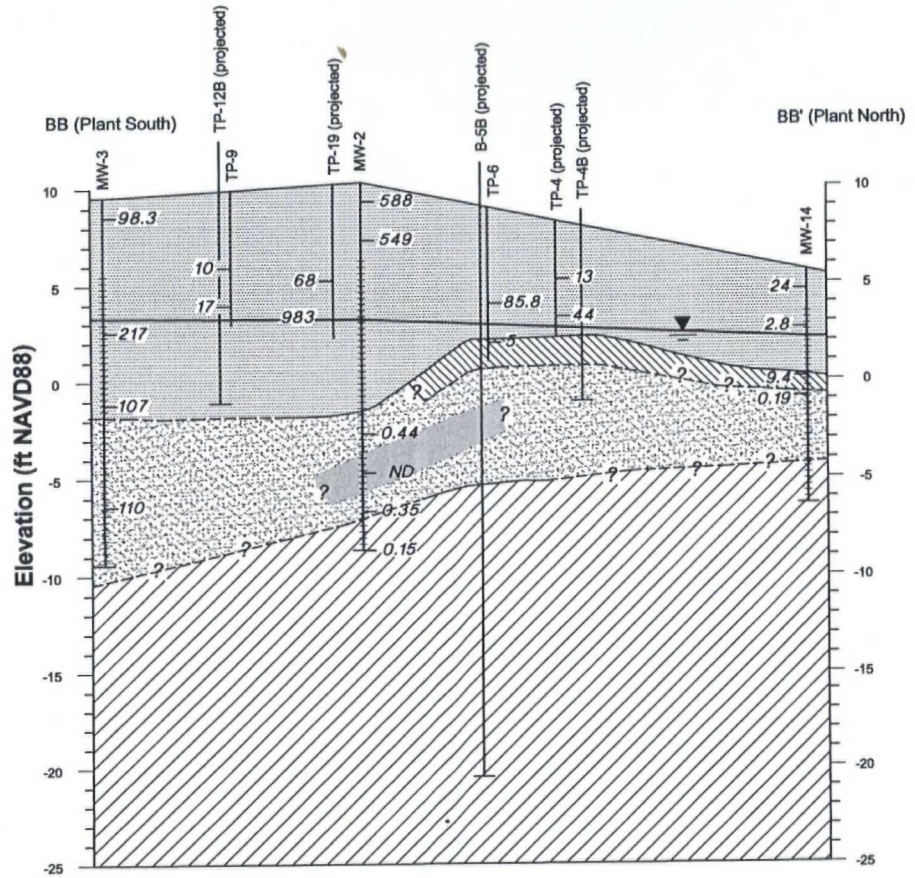

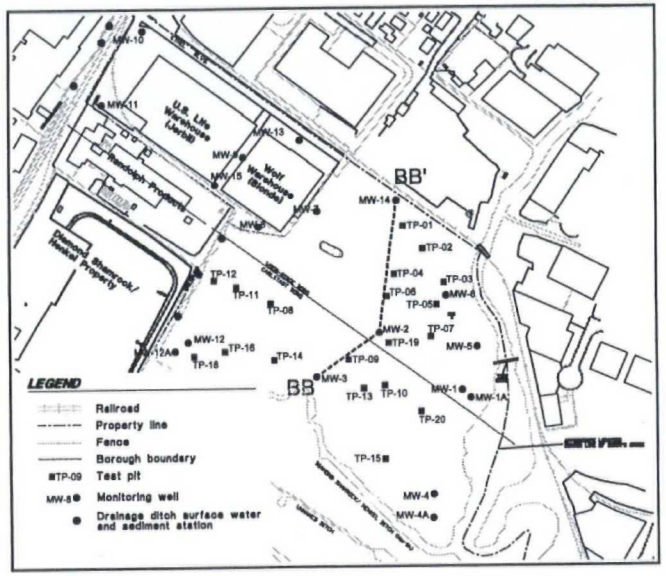

Transect location BB - BB'

0 150 300 feet

LEGEND

- FILL (composed of silt, clay and construction debris)
- Organic rich silt and peat
- Fine to coarse sand
- Fine-grained deposits (undifferentiated, primarily composed of clay and silt with fine sand)
- —0.5 Hg soil concentrations (mg/kg) from boreholes and test pits, shown at midpoint of sample composite interval
- Root fragments
- ? Unknown
- Soil contact; dashed where inferred
- Cased interval
- Screen interval
- Groundwater surface December 1999 (approximate)

0 100 200 feet

Note: Vertical scale is exaggerated 20x

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Figure N-3. Cross section BB-BB'.

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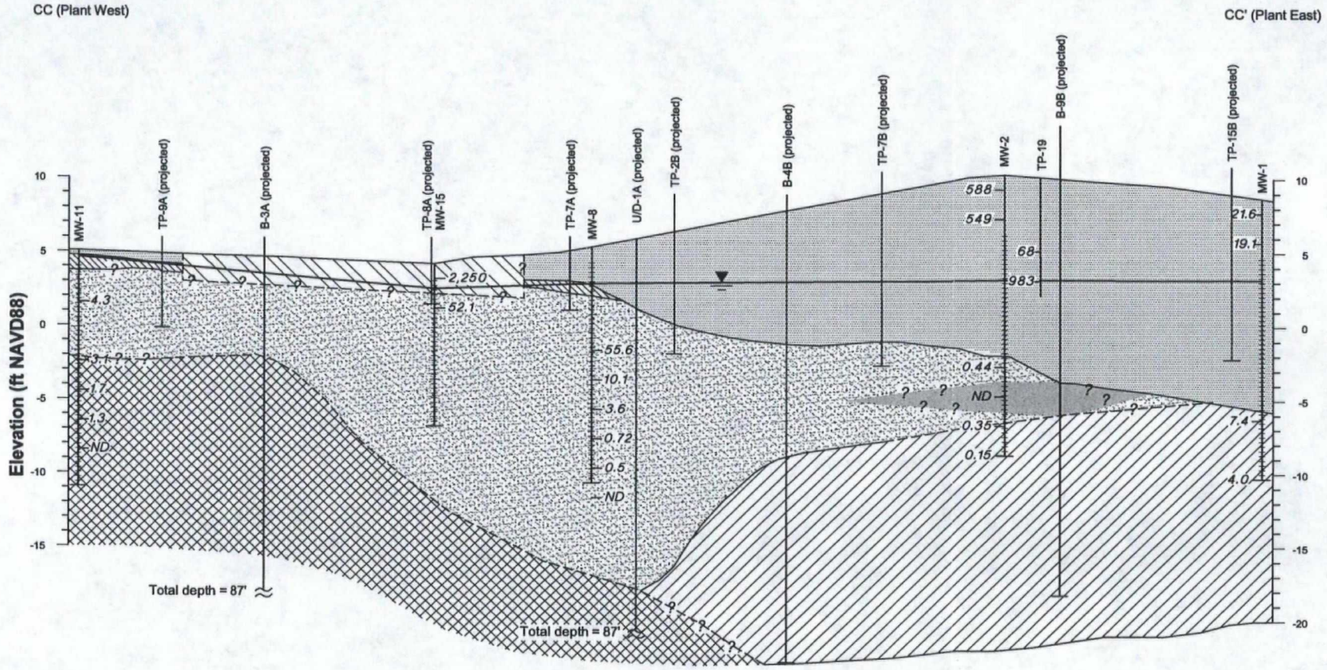

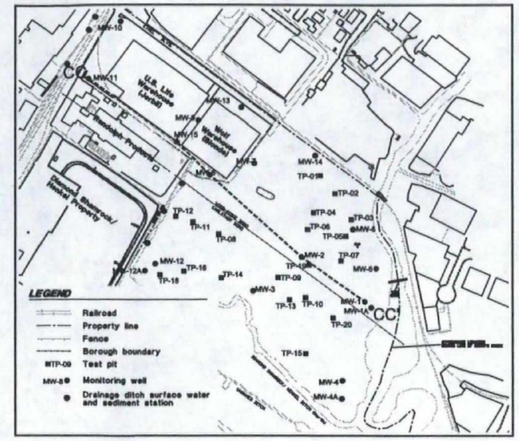

Transect location CC - CC'

0 150 300 feet

LEGEND

- FILL (composed of silt, clay and construction debris)
- Organic rich silt and peat
- Fine to coarse sand
- Fine-grained deposits (undifferentiated, primarily composed of clay and silt with fine sand)
- Varved clay and silt (as identified by Ward 1974, 1975)
- Controlled fill (sand and gravel). Placed for building foundations. Buildings constructed in approximately 1975. Area and depth of fill estimated based on proposed design from the Ward (1975) geotechnical investigation report.
- Root fragments
- —0.5 Hg soil concentrations (mg/kg) from boreholes and test pits, shown at midpoint of sample composite interval
- ? Unknown
- Soil contact; dashed where inferred
- Cased interval
- Screen interval
- Groundwater surface December 1999 (approximate)

0 100 200 feet

Note: Vertical scale is exaggerated 20x

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Figure N-4. Cross section CC-CC'.

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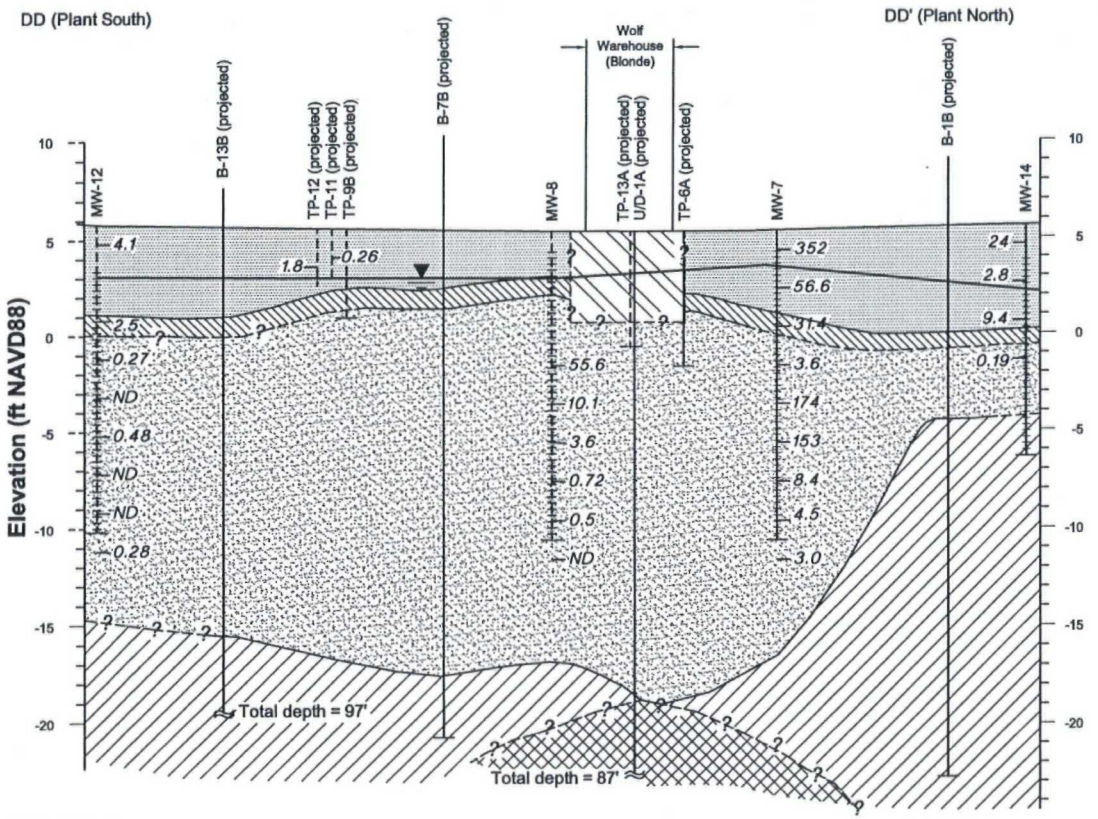
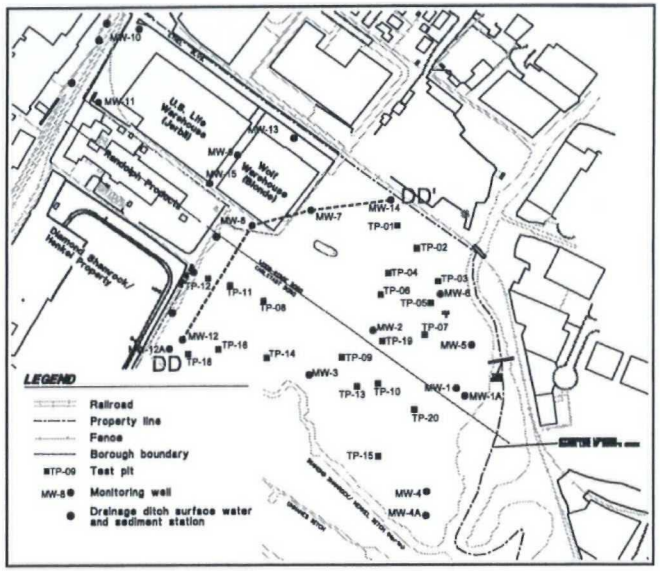


LEGEND

- FILL (composed of silt, clay and construction debris)
- Organic rich silt and peat
- Fine to coarse sand
- Fine-grained deposits (undifferentiated, primarily composed of clay and silt with fine sand)
- Varved clay and silt (as identified by Ward 1974, 1975)
- Controlled fill (sand and gravel). Placed for building foundations. Buildings constructed in approximately 1975. Area and depth of fill estimated based on proposed design from the Ward (1975) geotechnical investigation report.
- 0.5 Hg soil concentrations (mg/kg) from boreholes and test pits, shown at midpoint of sample composite interval
- ? Unknown
- Soil contact; dashed where inferred
- Cased interval
- Screen interval
- Groundwater surface December 1999 (approximate)



Transect location DD - DD'

0 150 300 feet

0 100 200 feet

Note: Vertical scale is exaggerated 20x

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Figure N-5. Cross section DD-DD'.

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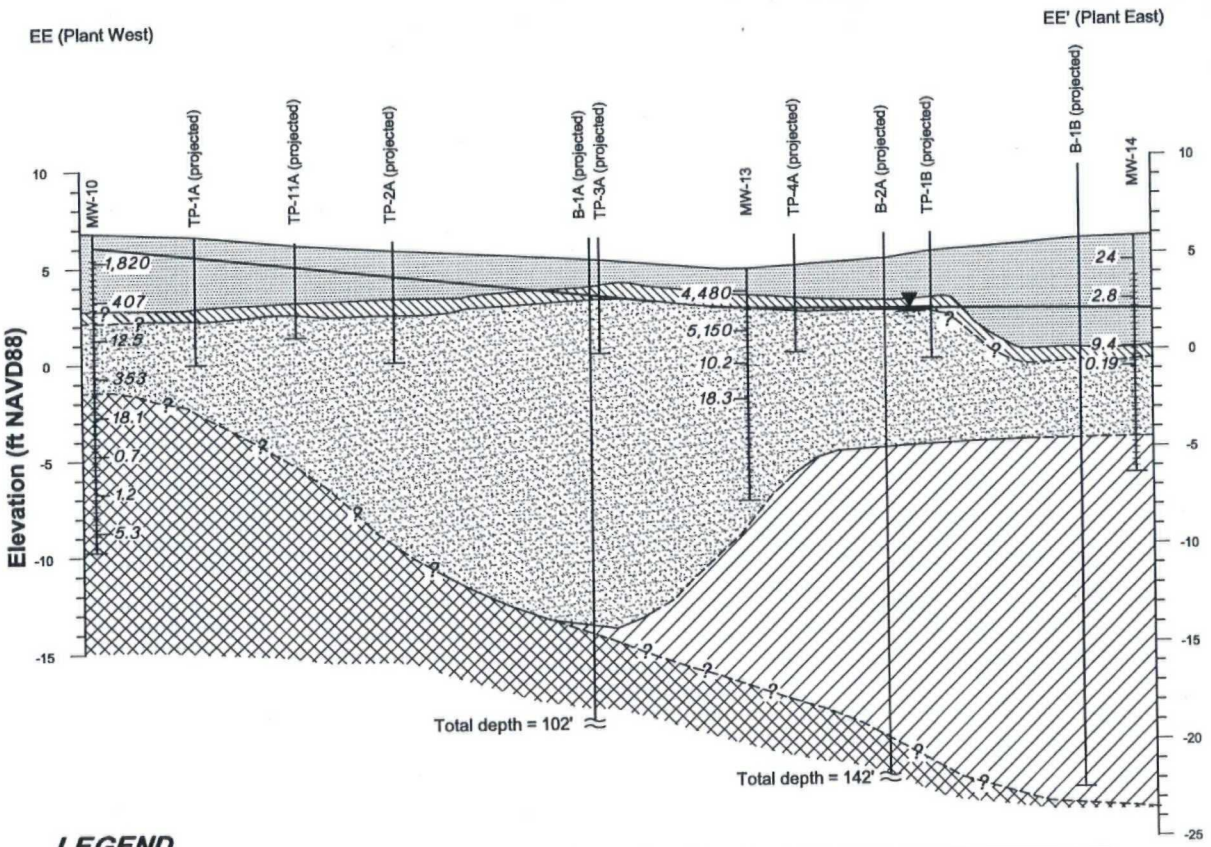

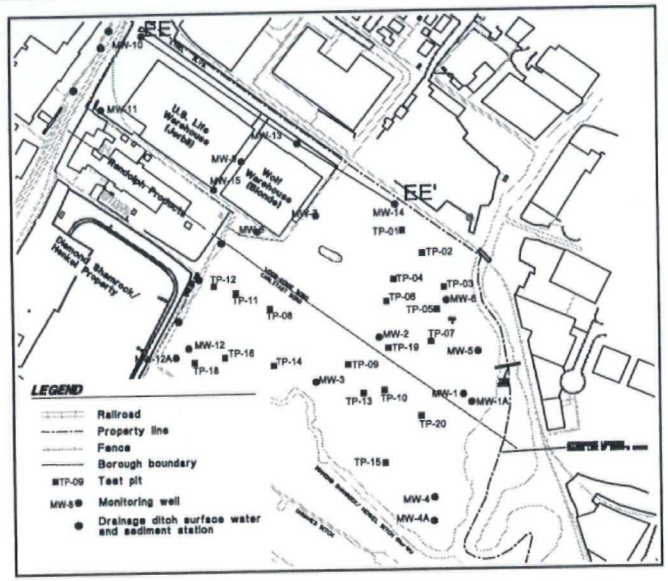

Transect location EE - EE'

0 150 300 feet

LEGEND

- FILL (composed of silt, clay and construction debris)
- Organic rich silt and peat
- Fine to coarse sand
- Fine-grained deposits (undifferentiated, primarily composed of clay and silt with fine sand)
- Varved clay and silt (as identified by Ward 1974, 1975)
- 0.5 Hg soil concentrations (mg/kg) from boreholes and test pits, shown at midpoint of sample composite interval
- ? Unknown
- Soil contact; dashed where inferred
- Cased interval
- Screen interval
- Groundwater surface December 1999 (approximate)

0 100 200 feet

Note: Vertical scale is exaggerated 20x

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Figure N-6. Cross section EE-EE'.

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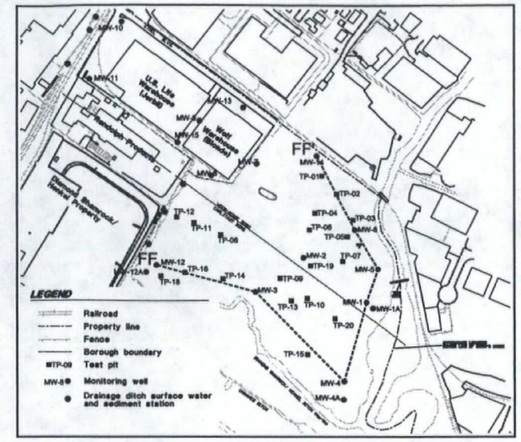
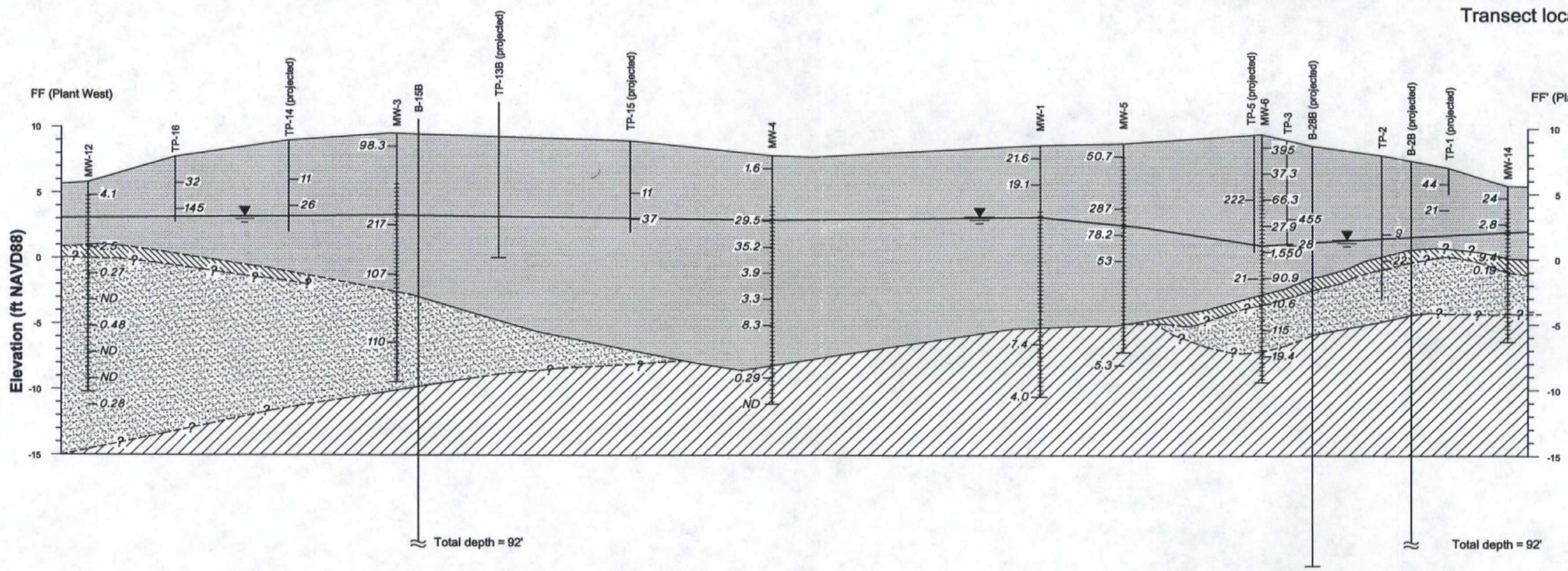


Transect location FF - FF'

0 150 300 feet



LEGEND

- FILL (composed of silt, clay and construction debris)
- Organic rich silt and peat
- Fine to coarse sand
- Fine-grained deposits (undifferentiated, primarily composed of clay and silt with fine sand)
- Varved clay and silt (as identified by Ward 1974, 1975)
- –0.5 Hg soil concentrations (mg/kg) from boreholes and test pits, shown at midpoint of sample composite interval
- ? Unknown
- Soil contact; dashed where inferred
- Cased interval
- Screen interval
- Groundwater surface December 1999 (approximate)

0 100 200 feet

Note: Vertical scale is exaggerated 20x

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Figure N-7. Cross section FF-FF'.

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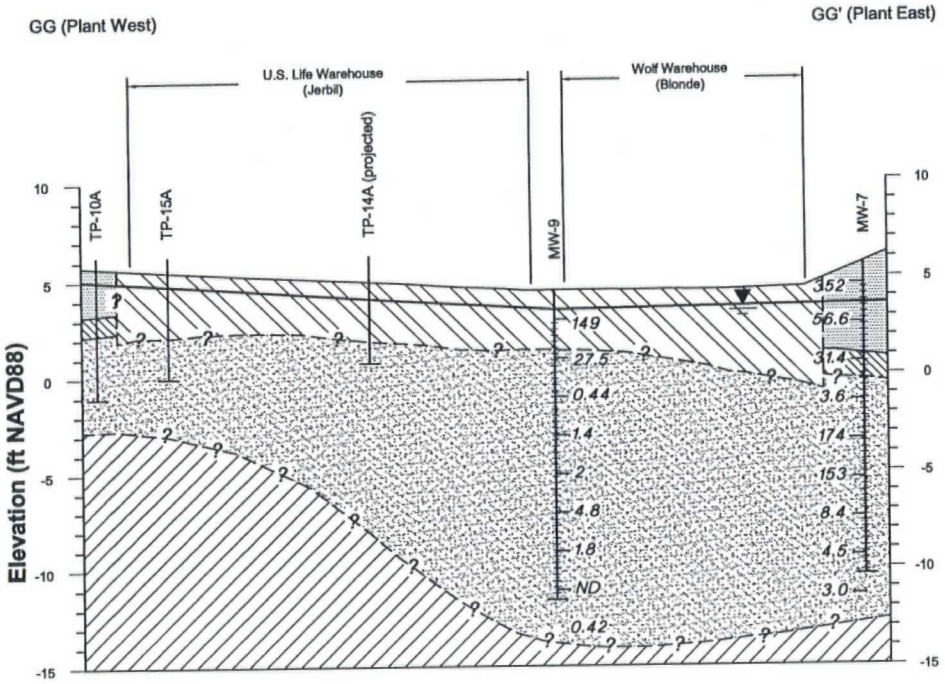

LEGEND

- FILL (composed of silt, clay and construction debris)
- Organic rich silt and peat
- Fine to coarse sand
- Fine-grained deposits (undifferentiated, primarily composed of clay and silt with fine sand)
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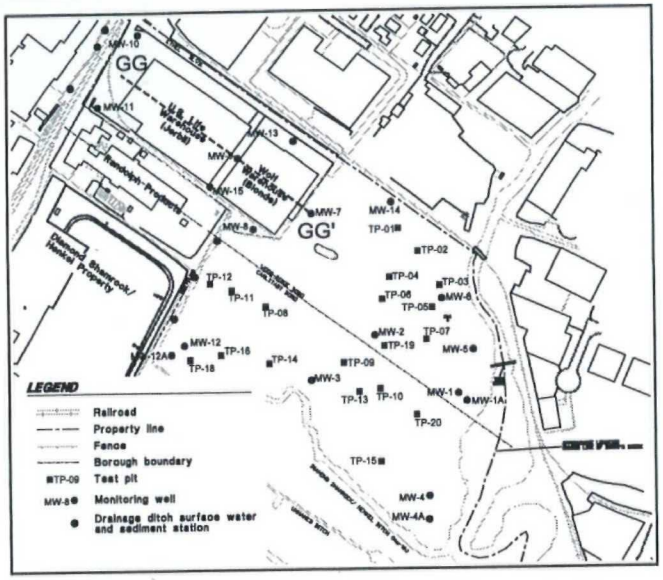
- ? Unknown
- Soil contact; dashed where inferred
- Cased interval
- Screen interval
- Groundwater surface December 1999 (approximate)



Transect location GG - GG'

0 150 300 feet

0 100 200 feet

Note: Vertical scale is exaggerated 20x

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Figure N-8. Cross section GG-GG'.

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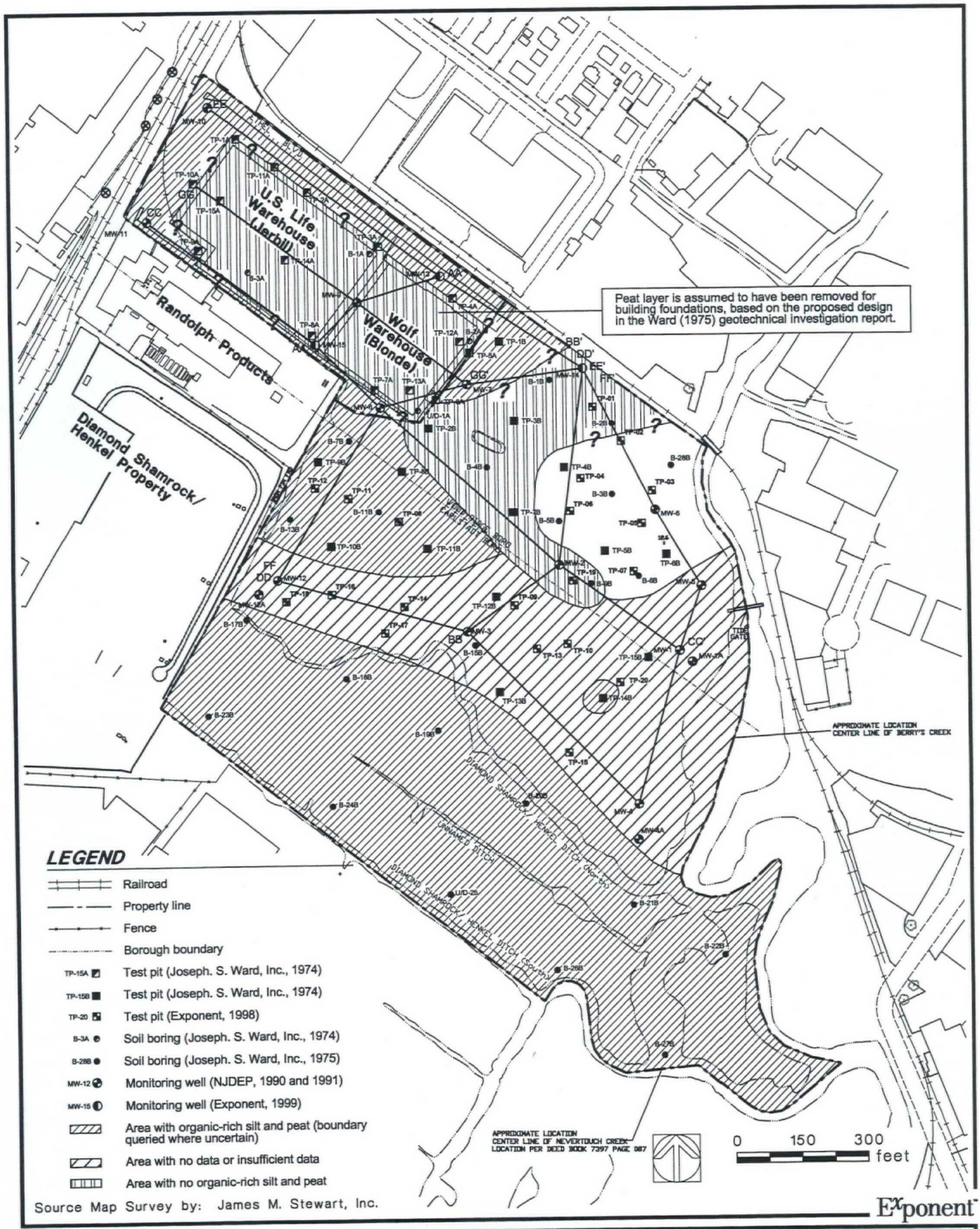

Figure N-9. Organic-rich silt and peat layer delineation.

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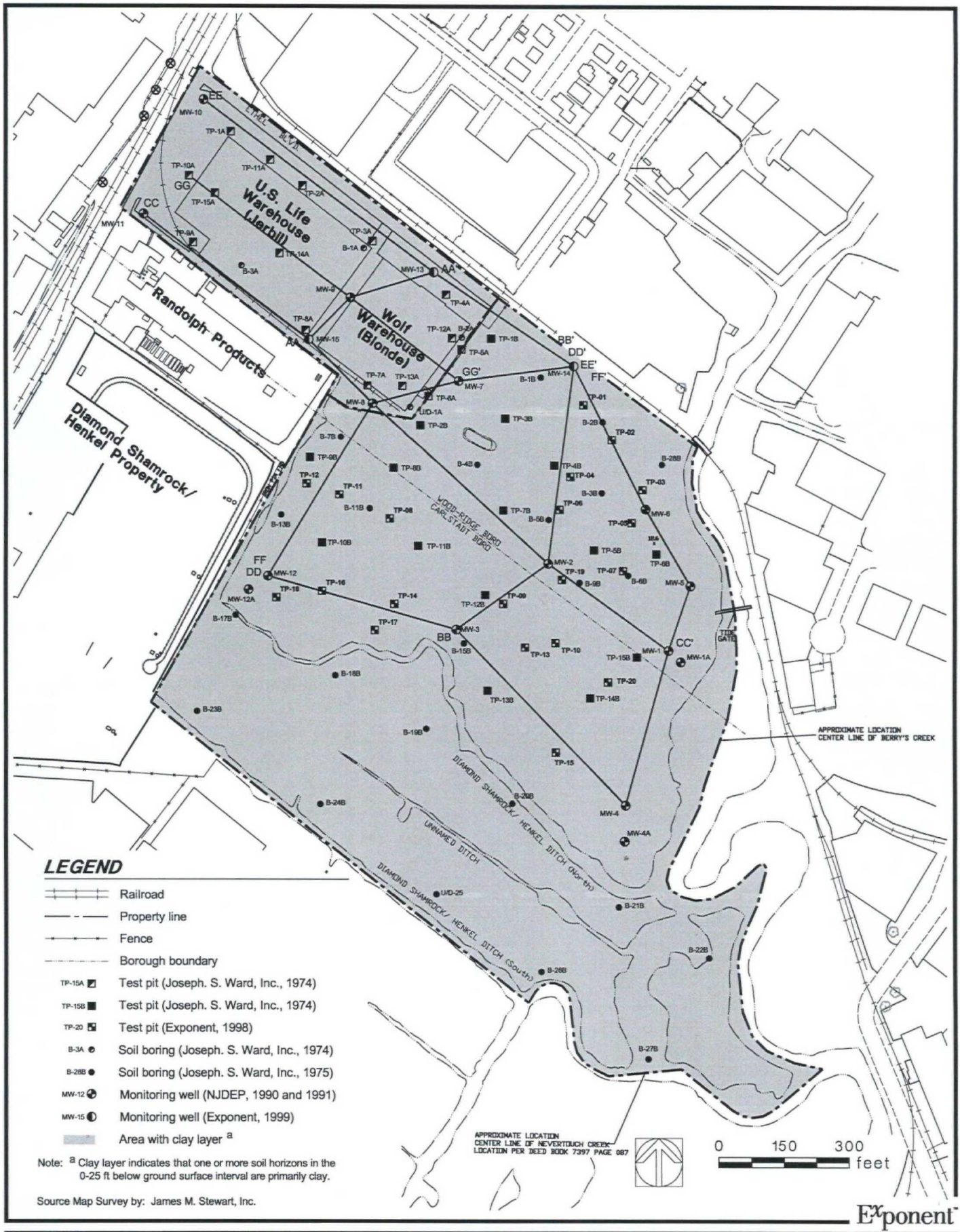

Figure N-10. Clay layer delineation.

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